

Los Alamos
National Laboratory

TA-53 Facility Management
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TA-53 Procedure

Facility Health and Safety Inspections

53FMP 111-01.02

Effective date: December 22, 1997

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1.0 Introduction

Occupational safety and health walk-through inspections help identify workplace hazards so they can be mitigated and abated, thereby reducing the risk of injury and illness to employees. Toward this end, the TA-53 Facility Management ES&H Team (primarily the health and safety professionals) shall assist in the identification and correction of occupational hazards through occupational safety and health inspections.

2.0 Purpose

The purposes of this standard are to (1) define the process for TA-53 facility health and safety inspections conducted by safety and health professionals within the TA-53 Facility Management Team, (2) establish uniformity in the inspections and the tracking and correction of identified hazards, and (3) help meet applicable UC Prime Contract Performances Measures as defined in Appendix F to the contract.

3.0 Scope

This procedure describes (1) the process for facility OSHA-type inspections conducted by the TA-53 FM Team, (2) the process for recording and tracking inspection results, and (3) line management responsibilities for corrective action. Experiment reviews, management walkarounds, external/internal appraisals, and Facility Representative walkthroughs are not covered by this document.

4.0 Definitions and terms

Hazard rating. A qualitative rating that serves as a guide for establishing the frequency of inspection for a particular building or area. The nature of operations in the area, records of previous health and safety inspections, and the Health Hazard Assessment (HHA) will serve as inputs to the hazard rating for a building/area.

Level 1 hazard. A hazard which poses an imminent danger which could be expected to cause death or serious physical harm immediately, or before the hazard can be mitigated or abated by management after notification is received through normal channels.

Level 2 hazard. A serious hazard in which there is a substantial probability that death or serious physical harm could result from such a hazard.

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Level 3 hazard. An other than serious hazard which will probably not cause death or serious physical harm, but would have a direct or immediate relationship to the safety and/or health of the exposed employee.

Level 4 hazard. A minor condition which has no direct or immediate relationship to the safety or health of the worker, although it is a violation of OSHA standards, LANL requirements or other applicable standards or codes.

Responsible group. The operating group which owns the equipment where the identified hazard exists, which owns the chemical or compound which creates the hazard, or which otherwise assumes responsibility in accordance with facility-tenant agreements or other documents.

Risk Assessment Code (RAC). A matrix used to classify hazard level, using definitions for hazard severity and hazard occurrence probability. Refer to Attachment 1.

5.0 Responsibilities

Who?	Responsibility
Inspection program coordinator	<ul style="list-style-type: none"> • establish hazard ratings for buildings/areas • conduct facility inspections per an established schedule • make hazard ratings and inspection schedules available for review by affected line managers • provide documented notification to the operating group of hazards and compliance deficiencies • provide recommendations for correcting deficiencies where appropriate • work with the operating group to immediately mitigate or abate Level 1 "imminent danger" hazards; implement "stop work" procedure if required • maintain records of deficiencies and corrective actions
Line manager	<ul style="list-style-type: none"> • implement corrective actions on a schedule appropriate to the identified hazard level

6.0 Precautions and Limitations

During an inspection, the TA-53 ES&H Team shall follow all applicable health and safety requirements for the area which is being inspected. This includes, but is not limited to, training, personal protective equipment, dosimetry, observance of postings, and requirements of safety procedures.

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7.0 Standard Requirements.

7.1. General

7.1.1. The TA-53 ES&H Team Leader shall appoint an Inspection Program Coordinator to facilitate the conduct of health and safety inspections and ensure that appropriate records are maintained.

7.1.2. The Inspection Program Coordinator shall assign hazard ratings to TA-53 buildings or areas of buildings. The ratings shall be reviewed annually and made available for review and input by the affected TA-53 line managers.

7.1.2. TA-53 ES&H Team shall conduct facility inspections per a documented annual schedule established by the Inspection Program Coordinator. The schedule shall be made available for review and input by the affected TA-53 line managers.

7.1.3. The frequency of inspection for a given building or area should be based upon the hazard rating. High hazard areas should be inspected at least twice/year, moderate hazard areas should be inspected at least once/year and low hazard areas should be inspected once/two years.

7.2. Determine purpose and scope. The Inspection Program Coordinator determines the purpose and scope of the inspection. Types of inspections include:

- comprehensive health and safety inspection, per the annual schedule;
- special emphasis, such as machine shops, forklifts, or electrical safety;
- compliance with specific standards (e.g., lockout/tagout);
- evaluation of effectiveness of engineering controls;
- pre-operational or pre-occupancy;
- a combination of the above.

7.3. Notify. The Inspection Program Coordinator shall notify the affected operating groups of routine inspections as far in advance as practicable so the groups may provide a representative to accompany the inspection team. Whenever possible, facility health and safety inspections will be arranged to coincide with group-scheduled inspections.

7.4. Preparation. Prior to the inspection, obtain and review pertinent information which may assist in performing the inspection. Examples include:

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- reports of previous inspections and assessments;
- applicable SOPs or other safety procedures;
- chemical inventories and toxicological information;
- existing engineering controls;
- accident reports;
- operational reviews;
- operation training requirements (e.g., forklifts, cranes, lasers);

7.5. Conduct the inspection.

7.5.1. Evaluate compliance with OSHA standards, LANL requirements or other applicable standards or codes. Items to be evaluated may include, but are not limited to:

- machine guarding
- walking/working surfaces
- electrical hazards
- materials handling
- laser safety
- compressed gases/liquids
- cryogenic materials
- pressure systems
- confined spaces
- HAZCOM or Chemical Hygiene Plan requirements
- carcinogen control requirements
- personal protective equipment
- engineering controls
- explosive or pyrophoric materials
- means of egress
- ergonomic hazards
- noise exposure
- damaged and friable asbestos containing material
- illumination of work areas
- use of potable/nonpotable water systems
- eating/drinking areas
- signs, labels and tags
- emergency equipment and procedures

7.5.2. Where possible, deficiencies and recommendations should be relayed verbally to affected parties during the inspection so that corrective action(s) may be implemented on the spot.

7.5.3. Imminently dangerous or unsafe conditions shall be addressed immediately, preferably by the responsible organization. FM ES&H

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team members have the authority to stop work and/or implement immediate measures to mitigate hazards. Stop work actions shall be reported as soon as possible to the affected line manager and the Facility Manager.

7.6. Reporting and tracking.

7.6.1. Inspection results are advisory to management, however mitigation for high risk imminent and high risk serious hazards shall be in accordance with applicable contractual and DOE requirements. The Inspection Program Coordinator shall submit a written report of compliance deficiencies and hazards identified during an inspection to the appropriate line manager(s) and the TA-53 Facility Manager. Imminent and serious hazards will be brought to the appropriate line manager's attention the same day they are identified. Reports should be submitted within two weeks of the inspection. Reports shall include:

- the scope and purpose of the inspection
- the deficiencies identified during the inspection
- the location of each deficiency
- the standard or requirement which the deficiency violates
- the group responsible for correcting the deficiency
- where appropriate, recommendations on how to correct deficiencies

7.6.2. The Inspection Program Coordinator shall provide periodic reminders of outstanding deficiencies. In addition, subsequent inspections will serve as a follow-up on evaluating the implemented corrections.

7.6.3. The Inspection Program Coordinator shall ensure that deficiencies are recorded and tracked. Line management is responsible for corrective action.

7.7. Prioritizing corrective actions. Using a graded approach (refer to Attachment 1, "Risk Assessment Methodology")

- level 1 hazards—correct immediately;
- level 2 hazards—mitigate within 5 days of hazard identification;
- level 3 hazards—correct as soon as practicable after the higher level hazards are corrected (no later than 120 days is recommended);
- level 4 hazards—track and correct as time and funding permit.

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8.0 Required Records.

8.1. A copy of the written reports from the inspections will be filed and kept at the TA-53 Facility Management office.

9.0 References

Appendix F, UC Contract - Performance Measures. Contract No. W-7405-ENG-36.

OSHA Field Inspection Reference Manual, U.S. Dept. of Labor, Occupational Health and Safety Administration, December, 1996.

ESH-5 Field Operations Manual, "Inspection Procedures"

Attachment 1, "Risk Assessment Methodology", DOE Draft Std. 5483.XX.

LIR 401-10-01, Stop Work and Restart

10.0 Attachments

Risk Assessment Methodology

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ATTACHMENT 1

Risk Assessment Methodology

The level of risk associated with an occupational safety or health hazard is expressed in terms of an assigned Hazard Risk Level of high, medium or low based on the risk assessment code(RAC) assigned to the hazard. The RAC is determined by the severity of the injury or illness which could result from the hazard and the probability that such an injury or illness could occur.

Risk assessment consists of the evaluation of all hazards, in terms of their severity and probability. These two factors are combined to produce a risk assessment code. A hazard's severity is defined to provide a qualitative measure of the worst credible mishap which could occur as a direct result of the hazard. A hazard's probability is defined to provide a measure of the likelihood of the worst credible mishap actually occurring. There are four severities and four probabilities, yielding a total of sixteen combinations, any of which are placed under one of four risk assessment codes (RAC).

Severity Code Definitions:

Code	Definition
I	Death or injury/illness involving permanent total disability or chronic or irreversible illness. Facility or system loss of \$10 million or more.
II	Injury/illness resulting in permanent partial disability or temporary total disability in excess of three months. Facility or system loss of \$100,000 to \$10 million.
III	Injury/illness resulting in hospitalization or temporary, reversible illnesses with a limited period of disability of less than three months. Facility or system loss of \$1,000 to \$100,000.
IV	Injury/illness resulting in no hospitalization; temporary, reversible illnesses requiring only minor treatment. Facility or system loss of less than \$1,000.

Probability Definitions:

Code	Definition
A	Likely to occur immediately. Occurs once/week or more often.
B	Probably will occur in time. Occurs from once/week to once/year.

C Possible to occur in time. Occurs from once/year to once every 50 years.

D Unlikely to occur. Occurs less often than once every 50 years.

Risk Assessment Code (RAC) Matrix:

		<u>Probability Code</u>			
		A	B	C	D
<u>Severity Code</u>	I	1	2	3	3
	II	1	2	3	4
	III	2	3	4	4
	IV	3	3	4	4

RAC Categories:

<u>RAC</u>	<u>Category</u>
1	High Risk Imminent - Hazard must be mitigated/abated immediately or personnel removed from the area until the hazard is eliminated.
2	High Risk Serious - Hazard must be mitigated/abated within 5 working days of identification or per a schedule agreed to in accordance with applicable contractual requirements.
3	Moderate Risk - Hazard should be mitigated/abated within 120 calendar days of identification.
4	Low Risk - Hazard should be mitigated/abated as time and funding permits.